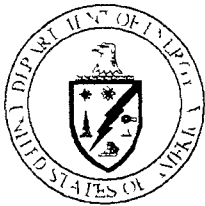


59687



Department of Energy

ROCKY FLATS FIELD OFFICE
P O BOX 928
GOLDEN COLORADO 80402 0928

95-DOE-14226

Mr Thomas Looby
Director, Office of Environment
Colorado Department of Public Health and Environment
4300 Cherry Creek Drive South
Denver, Colorado 80222-153

Dear Mr. Looby *Tom*

This letter conveys the Corrective Action Decision/Record of Decision (CAD/ROD) for Operable Unit 15 Inside Building Closures for your action. This document presents the conclusions of some two years of studies and investigations of six Individual Hazardous Substance Sites (IHSSs) located inside three production buildings at the Rocky Flats Environmental Technology Site. The Selected Remedy was (1) No action for IHSSs 178, 211, and 217, and (2) deferral of any Comprehensive Environmental Response, Compensation, and Liability Act actions at IHSSs 179, 180, and 204 until final disposition of their respective buildings. Resource Conservation and Recovery Act certification of closure by an independent registered professional engineer has been submitted to your Department and approved.

The Proposed Plan was developed in consultation with the United States Environmental Protection Agency and your Department, and was presented to the public at a Public Hearing on June 21, 1995. Comments made at that meeting are addressed in the Responsiveness Summary which accompanies this document. The Public Comment period was open from May 17 to July 16 for the CAD/ROD and from August 9 to September 8 for the Interim Status Closure Plan. No comments were received other than those given verbally at the Public Hearing.

In the capacity of lead regulatory agency for Operable Unit 15, please coordinate the signing of the CAD/ROD with the Environmental Protection Agency. Three originals are enclosed, so that each agency can have an original for their records.

We sincerely appreciate the cooperation and mutual trust that the personnel of your Department displayed throughout the performance of the Operable Unit 15 program. Of particular note were Carl Spreng, Jeff Swanson and Joe Schieffelin. We know they have been supported by many others. Our thanks to them all.

Sincerely,

A handwritten signature in dark ink, appearing to read "M. Silverman".

Mark N Silverman
Manager

Enclosure

ADMIN RECORD

2001-0001

T Looby
95-DOE-14226

2

cc w/ Enclosure
D Schubbe, RMRS
Administrative Record

cc w/o Enclosure
J McGraw, USEPA, Region VIII, Denver

SYNOPSIS

OUTGOING CORRESPONDENCE.

CONTROL NO.: 95-DOE-14226

ORIGINATOR:

Fitch, PDG, EP, x4013/Bell, PDG, EP, x2039

ISSUE:

Transmittal of Corrective Action Decision/Record of Decision (CAD/ROD) for Operable Unit 15 Inside Building Closures to the Colorado Department of Public Health and Environment (CDPHE) for approval CDPHE will then coordinate with the United States Environmental Protection Agency (EPA) to obtain its approval, thus completing the CAD/ROD process

BACKGROUND:

This is the final step in the closure of Operable Unit 15 under the Interagency Agreement

The following activities and reports have occurred

Approval of the Operable Unit 15 Work Plan by CDPHE and EPA	October	1992
Revision of the Work Plan	March	1993
Approval of Sampling Procedure	July	1993
Initiation of inside building investigations	April	1993
Completion of sampling of Individual Hazardous Substances Sites	November	1993
Submission of draft Technical Memorandum #1, the only one	February	1994
Submission of final Technical Memorandum #1	May	1994
Submission of draft Phase I RCRA Field Investigation /Remedial Investigation (RFI/RI) Report	July	1994
Submission of final Phase I RCRA Field Investigation /Remedial Investigation (RFI/RI) Report	January	1994
Approval of the Proposed Plan	May	1995
Public Comment Period	May-July	1995
Public Hearing	June	1995
Approval of Certification of RCRA Clean Closure	August	1995

RECOMMENDATION:

Sign the attached Transmittal Letter

RECORD NOTES:

None

bcc Manager's file

Copy to Reading Room Yes No X (please initial)

PDD *[initials]* PDD
Fitch ss *[initials]* Bell *[initials]*
9/20/95 9/20/95

AMEP
Roberson
9/ /95

9/20 OCC *[initials]*
Lindsay
9/21/95
[initials]

OOM
Klein
9/ /95

[initials] OOM
Silverman
9/ /95

*Does EPA get similar letter?
or is this just to the LRA?*

bcc w/o Enclosure

J Roberson, AMEP, RFFO

D Lindsay, OCC, RFFO

D Sargent, SPS, RFFO

R Lightner, HQ, EM45

F Lockhart, DAMEP, RFFO

J Kerridge, PDD, RFFO

M Bell, PDD, RFFO

J Wienand, E&M, RFFO

J Ahlquist, HQ, EM453

C Gesalman, HQ, EM453

W, Fitch, PDD, RFFO

T Hedahl, KH

S Hahn, KH



Corrective Action Decision/ Record of Decision

OU15: Inside Building Closures

**The Rocky Flats Environmental Technology Site
Golden, Colorado**

August 1995

**CORRECTIVE ACTION DECISION/
RECORD OF DECISION DECLARATION**

Site Name and Location

Rocky Flats Environmental Technology Site (Rocky Flats) Operable Unit 15 Inside Building Closures
Golden, Jefferson County, Colorado

Statement of Basis and Purpose


This decision document presents the selected remedial action/corrective action for the Rocky Flats Operable Unit (OU) 15 Inside Building Closures. The selected remedial action was chosen in accordance with the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) of 1980, as amended by the Superfund Amendments and Reauthorization Act (SARA) of 1986, the Colorado Hazardous Waste Act (CHWA) and, to the extent practicable, the National Oil and Hazardous Substances Pollution Contingency Plan (NCP). The Resource Conservation Recovery Act (RCRA) is administered through the CHWA by the Colorado Department of Public Health and the Environment (CDPHE). OU15 was investigated and a Preferred Alternative was selected in compliance with the Federal Facility Agreement and Consent Order Inter-Agency Agreement (IAG) signed by the U.S. Department of Energy (DOE), the State of Colorado, and the U.S. Environmental Protection Agency (EPA) on January 22, 1991.

Description of the Selected Remedies

OU15 Inside Building Closures is composed of six Individual Hazardous Substance Sites (IHSSs). The preferred alternative for OU15 consists of the following actions: 1) Clean Closure under RCRA for all six of the OU15 IHSSs, 2) a No Action CERCLA decision for IHSSs 178, 211, and 217, and 3) a deferral of any CERCLA actions at IHSSs 179, 180, and 204 until final disposition of their respective buildings. RCRA closure certification for the six IHSSs, signed by an independent registered professional engineer, has been approved by CDPHE. The No Action CERCLA decision for IHSSs 178, 211, and 217 is based upon the NCP, which provides for the selection of a No Action alternative when a site or OU is already in a protective state. OU15 IHSSs 179, 180, and 204 will be closed as IAG IHSSs and any future CERCLA action decisions will be made based upon the ultimate disposition of the buildings, inclusive of the physical areas previously described as OU15 IHSSs. Evaluation of remedial alternatives and closure activities included waste minimization considerations.

Declaration Statement

DOE has determined that no remedial action is necessary to be protective of human health and the environment at IHSSs 178, 211, and 217 because they meet the clean closure requirements of the Rocky Flats RCRA Permit (RFRP) and the Federal occupational radiation protection standards. At IHSSs 179, 180, and 204, no remedial action is currently necessary, because they meet the clean closure requirements of the RFRP and the Rocky Flats radiological control program is in compliance with Applicable or Relevant and Appropriate Requirements (ARARs)/To Be Considered (TBC) criteria and other identified protective standards. Future CERCLA actions may be required at the time of ultimate disposition of the buildings. Because the remedy will not result in hazardous substances remaining onsite above ARARs, TBCs, or protective standards, a five-year review is not required.



Mark N. Silverman, Manager
U.S. Department of Energy, Rocky Flats Field Office

8/21/95

Date

Jack W. McGraw
Deputy Regional Administrator, Region VIII
U.S. Environmental Protection Agency

Date

Thomas P. Looby, Director, Office Of Environment,
Colorado Department of Public Health and Environment

Date

Section 1

Decision Summary

Site Name, Location, and Description

The Rocky Flats Environmental Technology Site is located north of the City of Golden in northern Jefferson County, Colorado. A copy of a site location map is attached (See Figure 1). Most Rocky Flats structures and all OU15 IHSSs are located within the industrialized area of Rocky Flats (See Figure 2), which occupies approximately 400 acres. Rocky Flats is surrounded by a buffer zone of approximately 6,150 acres (See Fig. 3).

Rocky Flats is located along the eastern edge of the southern Rocky Mountain region, immediately east of the Colorado Front Range. The site is located on a broad, eastward-sloping pediment that is capped by alluvial deposits of Quaternary age (i.e., Rocky Flats Alluvium). The tops of alluvial-covered pediments are nearly flat but slope eastward at 50 to 200 feet per mile (EG&G, 1992). At Rocky Flats, the alluvial-covered pediment surface is dissected by a series of east-northeast trending stream-cut valleys. The bases of the valleys containing Rock Creek, North and South Walnut Creeks, and Woman Creek lie 50 to 200 feet below the elevation of the older pediment surface. These valleys incise into the bedrock underlying alluvial deposits, but most bedrock is concealed beneath colluvial material accumulated along the gentle valley slopes.

Rock Creek, North and South Walnut Creeks, and Woman Creek are intermittent streams that flow generally from west to east and drain excessive water collected at Rocky Flats. Retention ponds are located in each of the creeks downstream of the main site. Rock Creek surface water flows northeast to the Rock Creek confluence with Coal Creek. Surface water within North and South Walnut Creeks that is not retained within retention ponds used for spill control flows to Great Western Reservoir. Surface water within Woman Creek which is not diverted to Mower Reservoir flows to Standley Lake.

The population, economics, and land use of areas surrounding Rocky Flats are described in a 1989 Rocky Flats vicinity demographics report prepared by the Department of Energy (DOE) (U.S. DOE, 1991a). Land use within 0 to 10 miles of Rocky Flats has been divided within the demographics report into residential, commercial, industrial, parks and open space, agricultural and vacant, and institutional classifications. Most residential use within five miles of Rocky Flats is located immediately northeast, east, and southeast of Rocky Flats. Commercial development is concentrated near residential developments north and southwest of Standley Lake and around Jefferson County Airport, located approximately three miles northeast of Rocky Flats. Industrial land use within five miles of the site is limited to quarrying and mining operations. Natural resources associated with the quarrying and mining activities include gravel and coal. Open-space lands are located northeast of Rocky Flats near the City of Broomfield and in small parcels adjoining major drainages and small neighborhood parks in the cities of Westminster and Arvada. The west, north, and east sides of Standley Lake are surrounded by open space. Irrigated and nonirrigated croplands, producing primarily wheat and barley, are located north and northeast of Rocky Flats near the cities of Broomfield, Lafayette, Louisville, and Boulder and in scattered parcels adjacent to the east boundary of the site. Several horse operations and small hay fields are located south of Rocky Flats. The demographic report characterizes much of the vacant land adjacent to Rocky Flats as rangeland.

Site History and Enforcement Activities

Rocky Flats is a government-owned, contractor operated facility, which was a part of the nationwide Nuclear Weapons Complex. The site was operated for the U S Atomic Energy Commission (AEC) from its inception during 1951 until the AEC was dissolved during 1975. At that time, responsibility for Rocky Flats was assigned to the Energy Research and Development Administration (ERDA), which was succeeded by DOE during 1977. Previous operations at Rocky Flats consisted of fabrication of nuclear weapons components from plutonium, uranium, and nonradioactive metals (i.e., stainless steel and beryllium).

Various studies were conducted at Rocky Flats to characterize environmental media and to assess the extent of radiological and chemical contaminant releases to the environment. The investigations performed before 1986 were summarized by Rockwell International (1986a). During 1986, two investigations were completed at the site. The first was the DOE Comprehensive Environmental Assessment and Response Program (CEARP) Phase I Installation Assessment (U S DOE, 1986). A number of sites that could potentially have adverse impacts on the environment were identified and designated as Solid Waste Management Units (SWMUs) within the CEARP of Rocky Flats. The second investigation involved a hydrogeologic and hydrochemical characterization of Rocky Flats (Rockwell International, 1986b).

On January 22, 1991, a Federal Facility Agreement and Consent Order (i.e., the Interagency Agreement (IAG)) was signed by DOE, EPA Region VIII, and the State of Colorado. The IAG assigned eight IHSSs to OU15 (178, 179, 180, 204, 211, 212, 215, and 217). However, IHSSs 212 and 215 are no longer included as part of OU15. IHSS 212 is now addressed in Part VIII of the Rocky Flats RCRA Mixed Residues Permit Modification (DOE, 1992), and IHSS 215 was transferred to OU9 in a Modification to Work of the IAG (DOE, 1991b) dated April 21, 1992. As required by the IAG, draft and final Work Plans, and draft and final RCRA Facility Investigation/Remedial Investigation (RFI/RI) Reports were prepared and submitted to the regulatory agencies. In addition, a Technical Memorandum was prepared to evaluate the need for sampling outside buildings containing OU15. The RFI/RI Report for OU15 was prepared in accordance with the IAG Statement of Work (Attachment 2 of the IAG) to fulfill IAG requirements for submittal of documentation and data necessary to determine if the risk from OU15 IHSSs warrants the need for remedial action.

The IAG scope of work was incorporated into the Rocky Flats RCRA Permit (RFRP). Upon signature of the Corrective Action Decision/Record of Decision (CAD/ROD) by DOE, EPA, and the State of Colorado, the State shall modify the RFRP to incorporate the CAD/ROD for OU15.

Highlights of Community Participation

Results of the Phase I RFI/RI for OU15 were presented to the public at the Rocky Flats Quarterly meeting on February 15, 1995 and at the Rocky Flats Citizens Advisory Board on April 20, 1995. The OU15 Proposed Plan and Draft Permit Modification were presented to the Rocky Flats Technical Review Group on May 11, 1995 and a public comment period was held concurrently from May 17, 1995, to July 17, 1995. At a public hearing conducted on June 21, 1995, public comments and questions regarding the *Proposed Plan and Draft Modification of Colorado Hazardous Waste Permit for Rocky Flats Environmental Technology Site Operable Unit 15 Inside Building Closures* were recorded and responses are included in the Responsiveness Summary, Section 2, of this ROD.

Scope and Role of Operable Unit 15 within Site Strategy

The six IHSSs comprising OU15 are located in buildings, inside the Industrial Area (See Figure 2) and are listed in the following table

IHSS 178 -	Building 881, Drum Storage Area (Room 165)
IHSS 179 -	Building 865, Drum Storage Area (Room 145)
IHSS 180 -	Building 883, Drum Storage Area (Room 104)
IHSS 204 -	Building 447, RCRA Unit 45, Original Uranium Chip Roaster (Rooms 32 and 502)
IHSS 211 -	Building 881, RCRA Unit 26, Drum Storage Area (Room 266B)
IHSS 217 -	Building 881, RCRA Unit 32, Cyanide Bench Scale Treatment (Room 131C)

The scope for OU15 IHSSs as defined within Table 5 of the IAG includes submittal of documentation and data required to close the regulated units in accordance with the IAG and the regulations. The RFI/RI work plans and reports were completed and submitted in accordance with the requirements specified within Table 5 and Table 6 of the IAG. In addition, a Technical Memorandum for field work outside buildings was prepared as defined within the approved RFI/RI work plan for OU15.

Site Characteristics

All OU15 IHSSs are located within buildings. Detailed information regarding OU15 IHSSs is included in the approved Phase I RFI/RI Report for OU15. The RCRA evaluation for OU15 consisted of comparing hot water rinse analyses to the RCRA clean closure Performance Standards defined in the RFRP. The CERCLA evaluation for OU15 consisted of comparing (screening) radionuclide surveys and analyses to appropriate radiation protection standards, as well as to DOE and Rocky Flats guidance, and evaluating beryllium smear data. The screening was performed in four steps as described in section 5.2.1.3 of the RFI/RI report. A brief description of each IHSS and the investigative procedures are listed below.

IHSS 178, Building 881, Drum Storage Area (Room 165). IHSS 178, which has a maximum storage capacity of five 55-gallon drums, was first used in 1953 when Building 881 operations began. The drums stored in the IHSS contained wastes contaminated with solvents and possibly low-level radioactivity. Thirty radiological smear samples were collected from the IHSS and three hot water rinse samples were obtained from the IHSS, perimeter, and pathway areas. Final radiological surveys at each of the 30 initial smear sample locations were performed. No RCRA-regulated constituents of regulatory concern were identified in the IHSS sampling. Also, none of the data collected during the CERCLA evaluation with respect to radionuclides and beryllium exceeded the screening criteria.

IHSS 179, Building 865, Drum Storage Area (Room 145). IHSS 179, which has a maximum storage capacity of ten 55-gallon drums, was first used for drum storage in 1970. The dimensions of the IHSS are approximately 8 feet by 12 feet. Drums stored in the IHSS contained oils, chlorinated solvents, low-level radioactive waste and possibly beryllium. Twenty-three radiological and beryllium smear samples were collected from the IHSS and

three hot water rinse samples were collected. Final radiological surveys at each of the 49 initial smear sample locations were performed. No RCRA-regulated constituents of regulatory concern were identified in the IHSS sampling. Also, none of the data collected during the CERCLA evaluation with respect to radionuclides exceeded the screening levels.

IHSS 180, Building 883, Drum Storage Area (Room 104) IHSS 180, which has a maximum storage capacity of thirty 55-gallon drums, was first used for drum storage in 1981. Drums stored in the IHSS contained oils contaminated with solvents, and uranium and beryllium. Forty-nine initial and beryllium smear samples were collected. Samples were obtained from the IHSS, perimeter, and pathway areas. Final radiological surveys at each of the 49 initial smear sample locations were performed. No RCRA-regulated constituents of regulatory concern were identified in the IHSS sampling. The data collected during the CERCLA evaluation did not detect radionuclides in the hot water rinse samples above the permissible levels and none of the post-rinse smear samples exhibited alpha or beta activity exceeding the permissible levels. However, seven of the areas surveyed for beta dose-rate exceeded the established screening criteria limit of 0.05 mrem/hr. An evaluation based on occupational exposure showed total effective dose

IHSS 204, Building 447, RCRA Unit (Room 502) IHSS 204, the Original Uranium Chip Roaster, was used historically to oxidize uranium chips coated with small amounts of uranium oxide. The unit is cylindrical and measures 10 feet by 16 feet and was first used for drum storage in 1981. Drums stored in the IHSS contained oils contaminated with solvents, and uranium and beryllium. Forty-nine initial and beryllium smear samples were collected. Samples were obtained from the IHSS, perimeter, and pathway areas. Final radiological surveys at each of the 49 initial smear sample locations were performed. No RCRA-regulated constituents of regulatory concern were identified in the IHSS sampling. The data collected during the CERCLA evaluation did not detect radionuclides in the hot water rinse samples above the permissible levels and none of the post-rinse smear samples exhibited alpha or beta activity exceeding the permissible levels. However, seven of the areas surveyed for beta dose-rate exceeded the established screening criteria limit of 0.05 mrem/hr. An evaluation based on occupational exposure showed total effective dose

IHSS 211, Building 881, RCRA Unit (Room 266B) IHSS 211, which has a maximum storage capacity of thirty 55-gallon drums, was first used for drum storage in 1981. Drums stored in the IHSS contained oils contaminated with solvents, and uranium and beryllium. Forty-nine initial and beryllium smear samples were collected. Samples were obtained from the IHSS, perimeter, and pathway areas. Final radiological surveys at each of the 49 initial smear sample locations were performed. No RCRA-regulated constituents of regulatory concern were identified in the IHSS sampling. The data collected during the CERCLA evaluation did not detect radionuclides in the hot water rinse samples above the permissible levels and none of the post-rinse smear samples exhibited alpha or beta activity exceeding the permissible levels. However, seven of the areas surveyed for beta dose-rate exceeded the established screening criteria limit of 0.05 mrem/hr. An evaluation based on occupational exposure showed total effective dose

IHSS 217, Building 881, RCRA Unit (Room 131C) IHSS 217 consists of a 4 feet by 5 feet metal fume hood and laboratory table, three 4-liter polyethylene bottles, a glass beaker, and a chlonne-specific ion electrode. The unit was

used historically to oxidize uranium chips coated with small amounts of uranium oxide. The unit is cylindrical and measures 10 feet by 16 feet and was first used for drum storage in 1981. Drums stored in the IHSS contained oils contaminated with solvents, and uranium and beryllium. Forty-nine initial and beryllium smear samples were collected. Samples were obtained from the IHSS, perimeter, and pathway areas. Final radiological surveys at each of the 49 initial smear sample locations were performed. No RCRA-regulated constituents of regulatory concern were identified in the IHSS sampling. The data collected during the CERCLA evaluation did not detect radionuclides in the hot water rinse samples above the permissible levels and none of the post-rinse smear samples exhibited alpha or beta activity exceeding the permissible levels. However, seven of the areas surveyed for beta dose-rate exceeded the established screening criteria limit of 0.05 mrem/hr. An evaluation based on occupational exposure showed total effective dose

Original Uranium Chip Roaster (Rooms 32 and 502) Roaster, was used historically to oxidize uranium chips coated with small amounts of uranium oxide. The unit is cylindrical and measures 10 feet by 16 feet and was first used for drum storage in 1981. Drums stored in the IHSS contained oils contaminated with solvents, and uranium and beryllium. Forty-nine initial and beryllium smear samples were collected. Samples were obtained from the IHSS, perimeter, and pathway areas. Final radiological surveys at each of the 49 initial smear sample locations were performed. No RCRA-regulated constituents of regulatory concern were identified in the IHSS sampling. The data collected during the CERCLA evaluation did not detect radionuclides in the hot water rinse samples above the permissible levels and none of the post-rinse smear samples exhibited alpha or beta activity exceeding the permissible levels. However, seven of the areas surveyed for beta dose-rate exceeded the established screening criteria limit of 0.05 mrem/hr. An evaluation based on occupational exposure showed total effective dose

Drum Storage Area (Room 266B) IHSS 211, which has a maximum storage capacity of thirty 55-gallon drums, was first used for drum storage in 1981. Drums stored in the IHSS contained oils contaminated with solvents, and uranium and beryllium. Forty-nine initial and beryllium smear samples were collected. Samples were obtained from the IHSS, perimeter, and pathway areas. Final radiological surveys at each of the 49 initial smear sample locations were performed. No RCRA-regulated constituents of regulatory concern were identified in the IHSS sampling. The data collected during the CERCLA evaluation did not detect radionuclides in the hot water rinse samples above the permissible levels and none of the post-rinse smear samples exhibited alpha or beta activity exceeding the permissible levels. However, seven of the areas surveyed for beta dose-rate exceeded the established screening criteria limit of 0.05 mrem/hr. An evaluation based on occupational exposure showed total effective dose

Uranide Bench Scale Treatment (Room 131C) IHSS 217 consists of a 4 feet by 5 feet metal fume hood and laboratory table, three 4-liter polyethylene bottles, a glass beaker, and a chlonne-specific ion electrode. The unit was

used as a bench scale treatment process to convert cyanide to cyanate. Thirteen radiological smear samples were collected from the IHSS and one hot water rinse sample was obtained from the IHSS. Final radiological surveys at each of the 13 initial smear sample locations were performed. No RCRA-regulated constituents of regulatory concern were identified in the IHSS verification sampling. Also, none of the data collected during the CERCLA evaluation with respect to radionuclides exceeded the screening criteria.

Summary of Site Risks

The risks to human health and the environment associated with the OU15 IHSSs were characterized as part of the OU15 RFI/RI, which was completed in accordance with the requirements presented in the IAG and specifically identified in the Final Phase I RFI/RI Work Plan for OU15. A detailed discussion of the methods and results is presented in the Final Phase I RFI/RI Report. To evaluate risks to workers inside the buildings, the results of the sampling and analysis were compared to potential Applicable or Relevant and Appropriate Requirements (ARARs) and applicable protective standards termed To Be Considered (TBC) criteria. The potential ARARs and TBCs were approved in the Final Phase I RFI/RI Work Plan for OU15.

For OU15, ARARs and protective standards were identified for both hazardous constituents (e.g., spent solvents, metals) and radionuclides. The ARAR used to evaluate hazardous constituents was the RCRA clean closure performance standard (6 Colorado Code of Regulations 1007-3, Section 265.111), which specifies that the IHSSs must be closed in a manner that protects human health and the environment. RCRA is administered through the CHWA by the Colorado Department of Public Health and the Environment. The standards were satisfied when analytical results from the samples collected at each IHSS exhibited no traces of hazardous constituents historically managed in the IHSS.

In order to protect individuals at DOE sites and facilities from exposure to radiation and radioactive materials, DOE established practices for the conduct of radiological operations in DOE orders. The radiation protection standards for workers were subsequently promulgated as a Federal regulation in 10 CFR 835, under the authority of the Atomic Energy Act.

Upon further review of the potential ARARs and TBCs approved in the Final Phase I RFI/RI Work Plan for OU15, it was determined that within the OU15 CAD/ROD, 10 Code Of Federal Regulation (CFR) 835 is recognized as a TBC Protective Standard not as an ARAR. Protection against radiation (10 CFR 20, APP. B) is referenced in 10 CFR 835 and therefore is not specified as a Protective Standard or as an ARAR in the OU15 CAD/ROD Protective Standards for occupational radiation protection (10 CFR 835) are not promulgated as environmental laws and therefore are not considered ARARs per EPA guidance within the NCP.

The results of visual inspections and sampling and analytical results demonstrate that the IHSSs are in compliance with the ARARs specified for hazardous constituents. No hazardous constituents associated with the management of wastes at OU15 were detected in the samples from the IHSSs.

IHSSs 178, 211, and 217 meet the Federal occupational radiation protection standards and pose no unacceptable risk to workers. Based on the radionuclides levels present at these IHSSs, specific radiological controls are not necessary to meet the worker dose limit standards. IHSSs 179, 180, and 204 are located within radiological control areas, and subject

to the procedures which are a part of the Rocky Flats Radiological Control Program in compliance with the protective standards for radionuclides

The results of the sampling and analysis, along with the review of historical records and the visual inspections, indicate that there have not been releases of either hazardous constituents or radiological contamination to the environment external to the buildings containing the OU15 IHSSs. The radiological control program for IHSSs 179, 180, and 204 will assure that no contaminants are released from the buildings. Therefore, these three IHSSs pose no risk to human, plant and animal populations outside of their respective buildings.

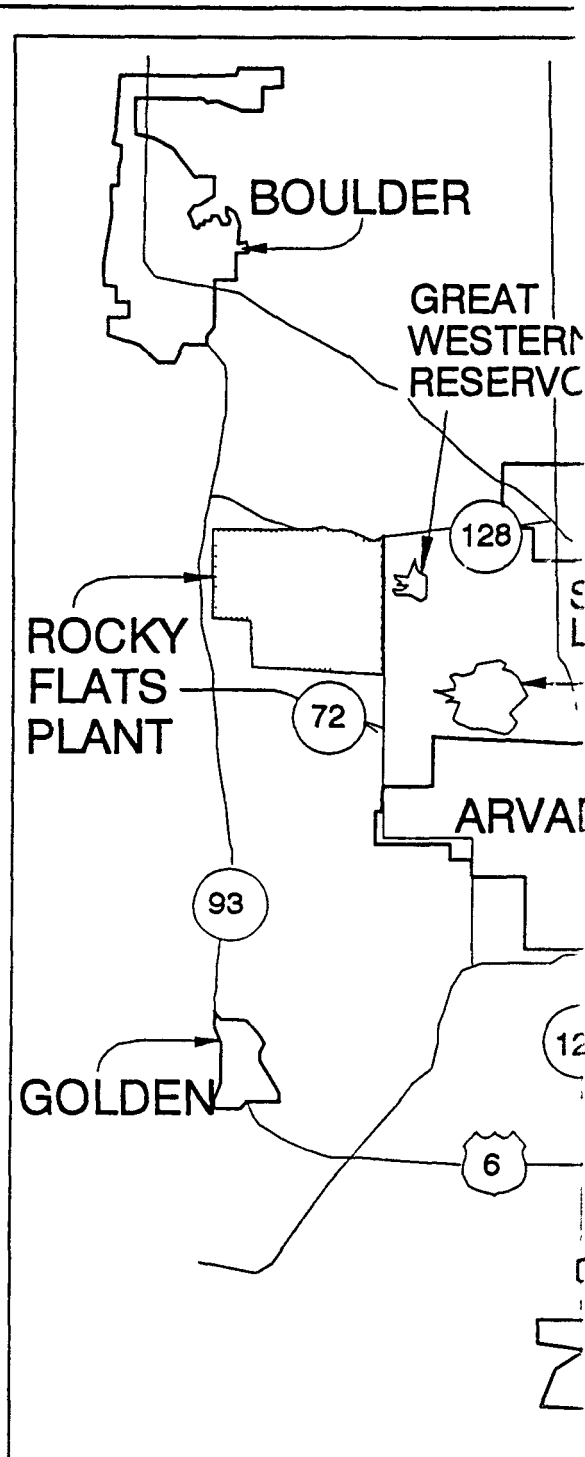
Selected Remedy

The preferred alternative proposed in this plan for OU15 consists of the following actions: 1) Clean Closure under RCRA for all six of the OU15 IHSSs, 2) a No Action CERCLA decision for IHSSs 178, 211, and 217, and 3) a deferral of any actions at IHSSs 179, 180, and 204 until final disposition of their respective buildings.

Clean closure under RCRA can be concluded since all six IHSSs meet the clean closure requirements of the Rocky Flats RCRA Permit. RCRA closure certification for the six IHSSs, signed by an independent registered professional engineer, has already been submitted to CDPHE. The No Action CERCLA decision for IHSSs 178, 211, and 217 is based upon the NCP, which provides for the selection of a No Action alternative when a site or OU is already in a protective state. IHSSs 179, 180, and 204 are within radiological control areas at Rocky Flats and actions at these physical areas are deferred until final disposition of the buildings in which they are located. All OU15 IHSSs will be closed with respect to RCRA and CERCLA. Any future CERCLA action decisions will be made based upon the ultimate disposition of the buildings, inclusive of the physical areas previously described as OU15 IHSSs.

Explanation of Significant Changes

No changes in the selected remedy have been made since the release of the *Proposed Plan and Draft Modification of Colorado Hazardous Waste Permit for Rocky Flats Environmental Technical Site Operable Unit 15 Inside Building Closures*.



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 APPROXIMATE SCALE 1" = 5 MILES

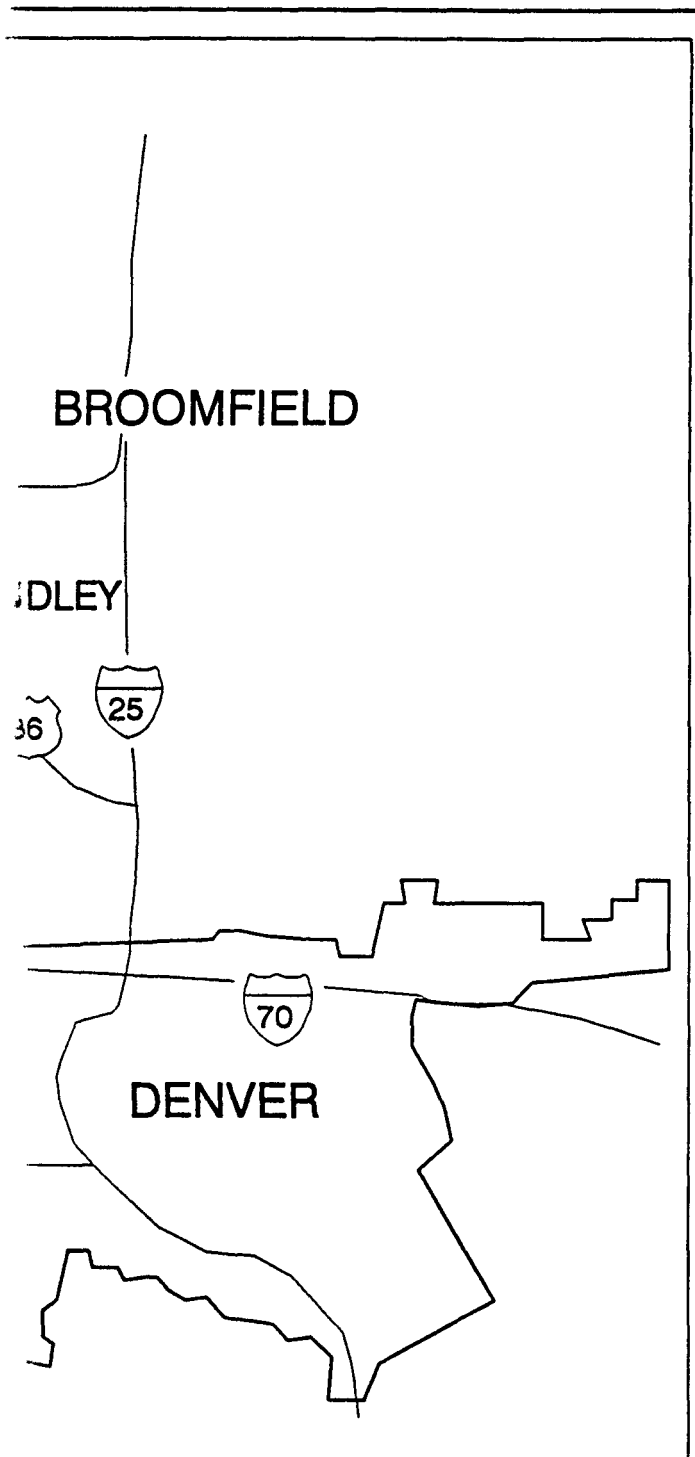


FIGURE 1
 SITE LOCATION MAP

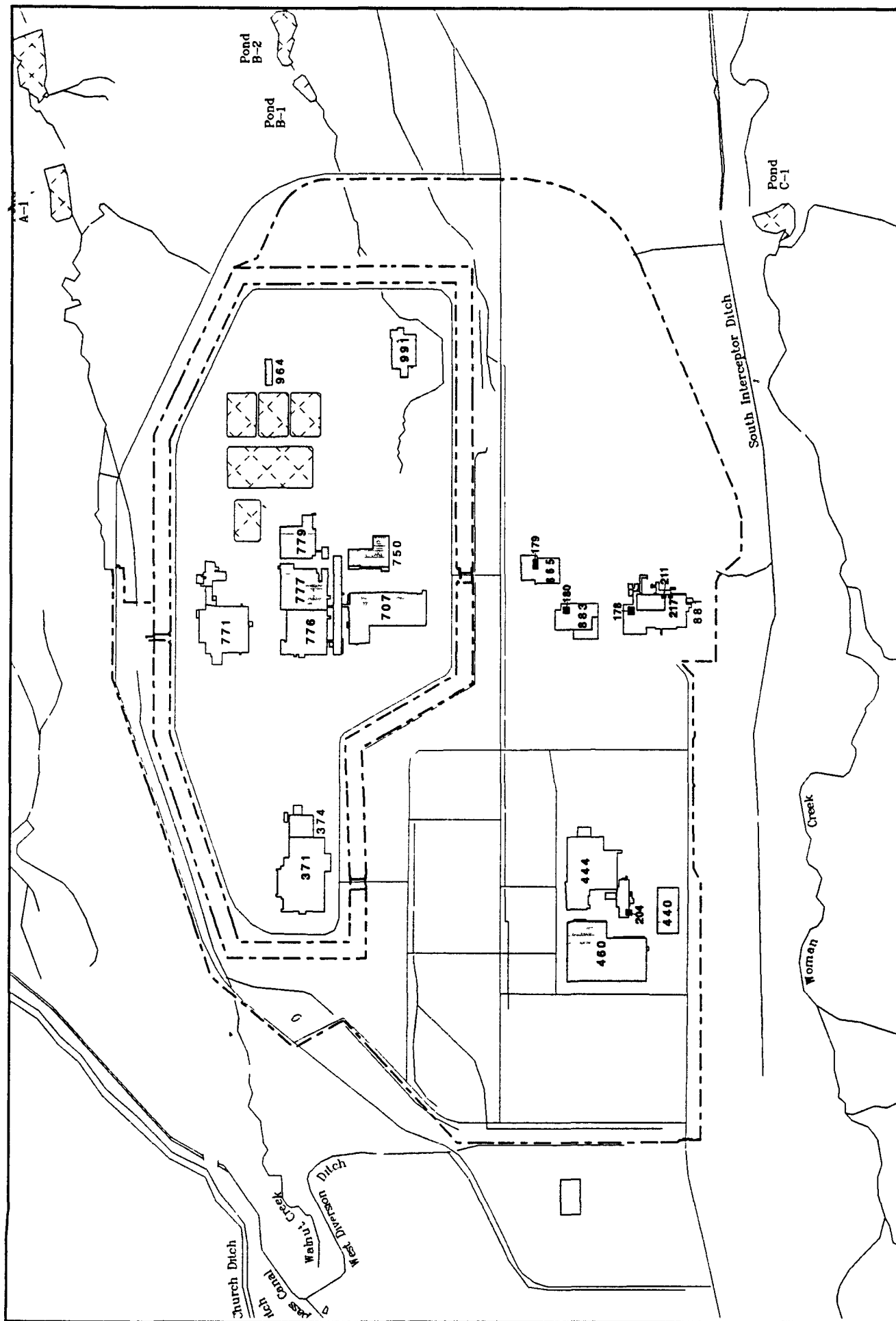


Figure 2 Operable Unit 15: Inside Building Closures

DATA SOURCE
Individual Hazardous Substance Sites
derived from the Historical Release Report
and Operable Unit Workplan

Buildings or
other structures



Lakes and ponds



Individual Hazardous
Substance Sites (IHSS)



Paved road



Security fence



Streams ditches and
other drainage features



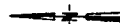
Figure 3

ROAD CLASSIFICATION

- Heavy-duty
- Medium-duty
- Light-duty
- Unimproved dirt

Standard Map Features

- Buildings and other structures
- Ponds and lakes
- Streams, ditches, and other drainage features
- Rocky Flats boundary



2500 0 5000ft

Base: Plan Coordinate Projection
Control: Control Point
Datum: NAD83

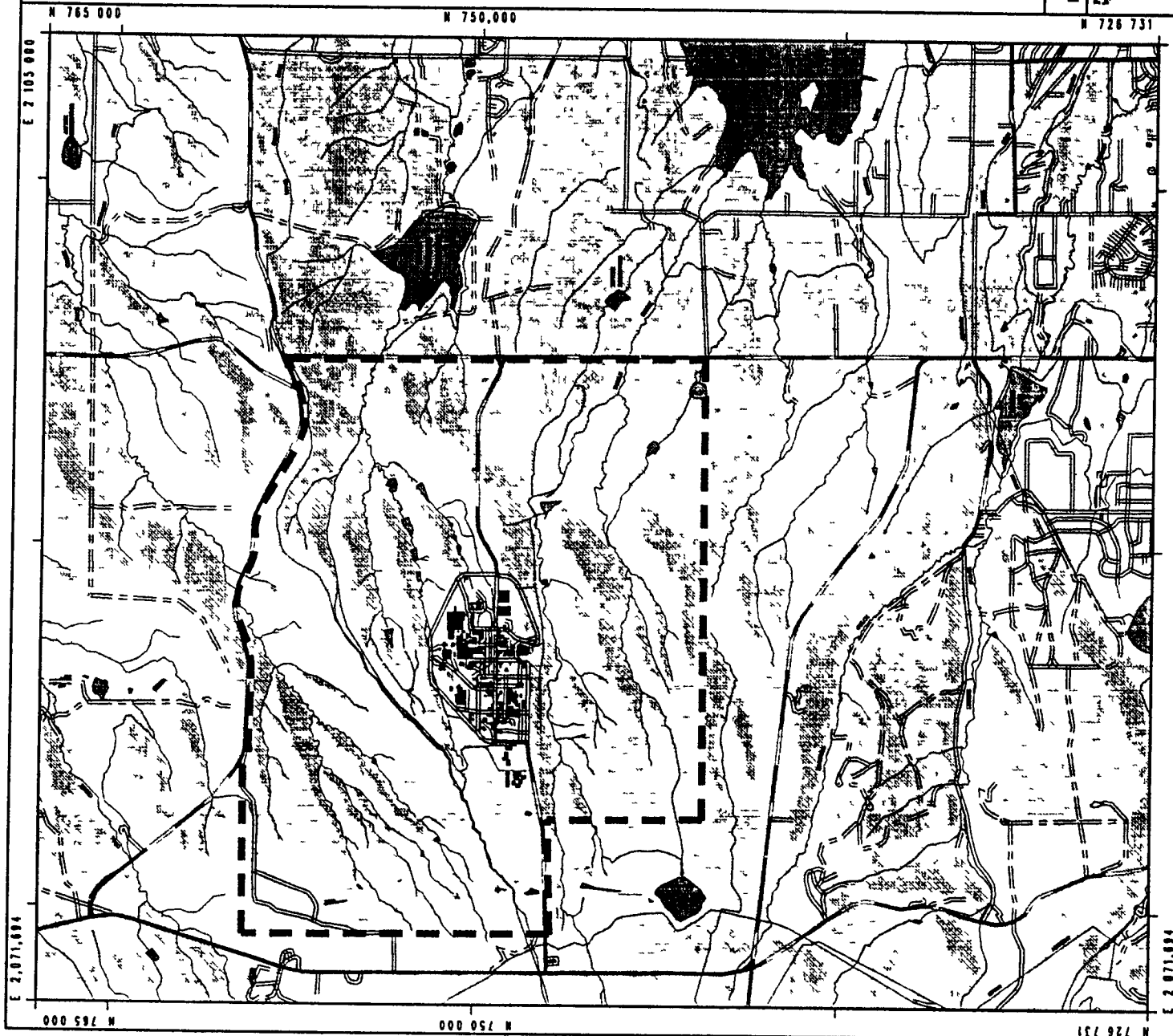
U.S. Department of Energy
Rocky Flats Environmental Technology Site



Rocky Flats
Environmental Technology Site
Rocky Flats Environmental Technology Site
Rocky Flats Environmental Technology Site

MAP ID: "Duck"

September 25, 1995



Section 2

Responsiveness Summary for Public comments on the Proposed Plan /Draft Modification of Colorado Hazardous Waste Permit for the Rocky Flats Plant Operable Unit 15: Inside Building Closures (May 10, 1995)

No Written Comments Were Received

The Responsiveness Summary for Public comments from the June 21, 1995, Public Hearing for OU 15 is Presented below.

Susan Hurst, Publication Director for Environmental Information Network

Question 1

I'd like to know exactly where the survey, the swipes, or whatever you did, were taken to make sure that it's a reasonable way that it was done

Response to Question 1

The sample locations and methodologies are described in Section 3 of the Final Phase I RFI/RI Report Operable Unit 15 Inside Building Closures

Question 2

And are those (Phase I RFI/RI Report) only available at the reading room, or do you have to order it, or what?

Response to Question 2

The report is available in the Public Reading Rooms A copy of the report was made available to Ms Hurst

Question 3

And I had an additional comment Oh, about the lead I would like to make a comment that in the past, they used a lot of the lead-based paint to shield the radiation that was already in the room, and my understanding is there's several layers of this paint And I'm wondering if possibly the lead you're getting may be coming from the paint?

Response to Question 3

As stated in Section 4.0 on page 14 Field Accuracy-Hot Water Rinse Blanks of the Phase I RFI/RI Report, the lead detected in the IHSS samples was attributed to the source water used for the hot water rinse sampling. Lead was detected in the source water (field blank samples).

No evidence of leaded paint being used to shield radiation in OU15 was found.

Question 4

No, my question is, is it (IHSSs) in one little area or is it the whole room?

Response to Question 4

The IHSSs are small areas which are located within large rooms. For example, IHSS 179 is four feet by 10 feet in size and is contained in a room that is larger than 100 feet by 100 feet. Another example is IHSS 217, which is a chemical hood having a base approximately four feet by six feet in size. The chemical hood is located in a laboratory room. The IHSSs are shown in the figures in Section 3 of the RFI/RI report.

Question 5

Are you --are you referring to like markers or just wall paint?

Response to Question 5

Several of the IHSS locations are identified by painted areas on the floors. The paint is used to identify the IHSS location not as a shield for radiation. No evidence of leaded paint being used to shield radiation in OU15 was found. In addition, several IHSSs, such as IHSS 217 the chemical hood, are painted for preservation purposes similar to painting a house or automobile.

Comment 1

And then I had a comment about the IHSS areas being utilized for the privatization plan. I think it's a bad idea while we're got storage out there.

Response to Comment 1

No storage or treatment is being conducted in the IHSSs which are scheduled to be privatized. Three IHSSs in OU15 are scheduled to be privatized. The standards for privatized IHSSs are the same as for closure under the NCPP for worker protection.

Paula Elofson-Gardine, Executive Director for the Environmental Information Network, and the Chair for the DOE Rocky Flats Technical Review Group:

Comment 1

And overall, in a general sense, I don't really have a problem with your current plan. It seems to be reasonable.

Response to Comment 1

Thank you.

General Comments

However, there is some concern about the adequacy of the plans for NCPP, with the IHSS as in Building 447, 883, and 865, most particularly with building 447.

If you obtain a copy of the 1989 EG&G remote sensing lab aerogamma survey, which is on the bottom of one of our fliers, there are pretty severely high hot areas of building shine from an area around the railroad spur, around the 400 compound, that is hot with manmade gross count and americium photo peaks that really should be taken into consideration as external penetrating gamma radiation that may be something you should be concerned about for people that are being --I don't want to say lured or baited. Let's say the plans to bring new victims on there, and we want to make sure the people actually have informed consent and have some kind of idea of what they may be exposed to.

Response to General Comments

Characterization studies for the IHSSs in the buildings have been completed and have determined that the IHSSs meet the protective standards required for workers as part of 10 CFR 835. An IM/IRA has been prepared as part of the National Conversion Pilot Project (NCPP) and was submitted for public comment on December 5, 1994. A Public Hearing for the NCPP IM/IRA was held on January 11, 1995. The NCPP is outside the scope of the Proposed Plan /Draft Modification of Colorado Hazardous Waste Permit for the Rocky Flats Plant Operable Unit 15 Inside Building Closures.

Appendix A – Acronym List

Rocky Flats	The Rocky Flats Environmental Technology Site
OU	Operable Unit
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
SARA	Superfund Amendments and Reauthorization Act
CHWA	Colorado Hazardous Waste Act
NCP	National Oil and Hazardous Substances Pollution Contingency Plan (National Contingency Plan)
RCRA	Resource Conservation and Recovery Act
CDPHE	Colorado Department of Public Health and Environment
IAG	Interagency Agreement
DOE	Department of Energy
EPA	Environmental Protection Agency
IHSS	Individual Hazardous Substance Site
RFRD	Rocky Flats RCRA Permit
ARAR	Applicable or Relevant and Appropriate Requirements
TBC	To Be Considered
AEC	Atomic Energy Commission
ERDA	Energy Research and Development Administration
CEARP	Comprehensive Environmental Assessment and Response Program
SWMU	Solid Waste Management Unit
RFI/RI	RCRA Facility Investigation/Remedial Investigation
CAD/ROD	Corrective Action Decision/Record of Decision
CFR	Code of Federal Regulation
NCPP	National Conversion Pilot Project

Appendix B - References

EG&G, 1992 EG&G Rocky Flats, Inc , "Phase I Geologic Characterization Data Acquisition - Surface Geologic Mapping of the Rocky Flats Plant and Vicinity, Jefferson and Boulder Counties, Final Report," Golden, Colorado, March 1992

Rockwell International, 1986a. Rockwell International, "Annual Environmental Monitoring Report, January-December 1985," Golden, Colorado Rockwell International, Rocky Flats Plant, Report RFP-ENV-85, 1986

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U S. DOE, 1986: U S Department of Energy, "Comprehensive Environmental Assessment and Response Program Phase I Draft Installation Assessment, Rocky Flats Plant," Washington, D C , DOE unnumbered draft report, 1986

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U S DOE, 1992: U S Department of Energy, "State RCRA Permit Modification Request No 8 for Mixed Residues," Rocky Flats Plant, ID No CO7890010526, Permit No 91-09-30-01, June 1992